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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/827,472	04/19/2004	Hui-Huang Chang	251806-1070	3300

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ATLANTA, GA 30339-5948

EXAMINER
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DICKER, DENNIS T

ART UNIT	PAPER NUMBER
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2609

MAIL DATE	DELIVERY MODE
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05/07/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/827,472

Applicant(s)

CHANG ET AL.

Examiner

Dennis Dicker

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 4/19/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 4/19/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 10/04/06.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Nonaka et al. (U.S. 5,892,596).

As Pertaining to claim 1, Nonaka et al. teaches and image processing device for processing image data [See Abstract] wherein the image data includes a plurality of vertical lines wherein those vertical lines include a plurality of pixel data [Figure 7] and the image processor comprising:

at least one buffer for buffering a plurality of superpixels and a processing unit which is coupled to at least one buffer unit according to a processing procedure [Column 4 Lines 61-67].

As Pertaining to claim 2, Nonaka et al. teaches an image-processing device wherein there is an image processing procedure [Column 4 Lines 49-52].

As Pertaining to claim 3, Nonaka et al. teaches an image processing device that includes a buffer and receives image data of at least one of the superpixels according to

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a first sequence and outputs the image data of the superpixels according to a second sequence [Column 3 Lines 17-22].

As Pertaining to claim 4, Nonaka et al. teaches an image processing device comprising a buffer unit control circuit for controlling the image data of the superpixel. [See Abstract].

As Pertaining to claim 5, Nonaka et al. teaches an image processing device wherein superpixels comprises a first superpixel and second superpixel both of which include first pixel data [see Figure 7].

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nonaka et al. (5,892,596) in view of Lupien Jr. et al (US 5,532,849).

Claim 6 and 7 are rejected as unpatentable over Nonaka et al. in view of Lupien Jr. et al, with respect to claims 6 and 7, Nonaka et al. teaches and image processing device for processing image data [Abstract] wherein the image data includes a plurality of vertical lines wherein those vertical lines include a plurality of pixel data [Figure 7] and the image processor comprising:

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at least one buffer for buffering a plurality of superpixels and a processing unit which is coupled to at least one buffer unit according to a processing procedure[Column 4 Lines 61-67].

Nonaka et al. does not teach an image processing device being installed in a scanner or a multi-function peripheral.

Lupien Jr. et al [Abstract and Column 11 lines 29-34] teaches an image processing device installed in a scanner.

Therefore it would have been obvious to someone of ordinary skill in the art at the time of invention to include this particular image processing device into a scanner to sequentially process superpixels which will reduce processing time and minimize the capacity of the buffers stored in scanners. It would have been obvious to someone of ordinary skill in the art at the time of invention that all Multifunction peripheral devices comprise a scanner.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis Dicker whose telephone number is (571) 270-3140. The examiner can normally be reached on Monday - Friday 7:30 A.M. to 4:00 P.M..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexander Eisen can be reached on (571) 270-1455. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DD

5/3/2007

Alexander Eisen  
SPE  
Art Unit 2609

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